

3) Family number: 14424149 (JP1294868 A2)

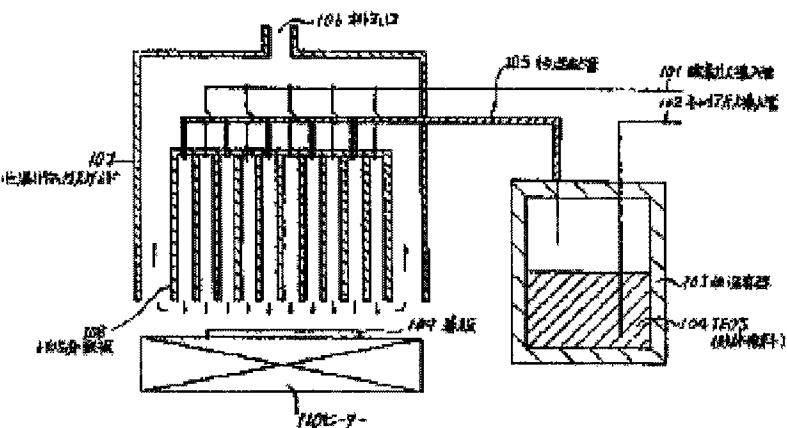
Title: VAPOR GROWTH APPARATUS

Abstract:

Source: JP1294868A2 PURPOSE: To prevent the deposition of a film on an injector surface by regulating respective temps. of an injector and its attendant exhaust gas part so that they are higher than the liquefaction temp. of a gaseous raw material and intermediate product and lower than the deposition temp. in a normal-pressure vapor growth apparatus. CONSTITUTION: Nitrogen is introduced as a carrier gas via an inlet pipe 102 into a liquid raw material 104 in a thermostatic vessel 103, evaporated by means of bubbling, and fed via a thermostatic pipe 105 of about 60°C into an injector in which plural dispersion plates 108 are parallelly arranged lengthwise. On the other hand, an ozone-containing oxygen gas is fed via an inlet pipe 101 to the dispersion plates 108 constituting the injector and mixed with a gaseous raw material, by which a film is formed on a substrate 109 placed on a heater 110. At this time, heating medium passages are provided to respective dispersion plates 108 mentioned above to allow a heating medium to flow, by which the temps. of the injector and the exhaust gas guide part 107 attached to the injector are controlled to fixed values higher than the liquefaction temp. of the gaseous raw material and an intermediate product and lower than the deposition temp., respectively. By this method, deposition velocity can be stabilized, and particles on the deposit film can be reduced.

International class (ipc 8): C23C16/44 C23C16/46 C23C16/52 H01L21/31 (Advanced/Invention); C23C16/44 C23C16/46 C23C16/52 H01L21/02 (Core/Invention)

International class (ipc 1-7): C23C16/44 C23C16/46 H01L21/31



Family:
Family Explorer

| Publication number | Publication date | Application number | Application date | Links |
|--------------------|------------------|--------------------|------------------|-------------------------------------------------------------------------------------------------------|
| JP1294868 A2 | 19891128 | JP19880237008 | 19880920 | Full Text Status Citations References |
| JP2602298 B2 | 19970423 | JP19880237008 | 19880920 | Full Text Status Citations References |

Priority:
Priority Map

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